

# TytoPro™

## Quick Start Guide



# Getting Started

This guide instructs you how to set up and operate your TytoPro product. Please follow the instructions below to start your examination process.

Please note the following instructions are also explained and demonstrated in video tutorials in the Tyto App, which walk you through your first steps in the Tyto exam.

**Please view carefully all the video tutorials before use, as they are critical for successful and safe operation and examination.**

For complete instructions, please refer to the User Manual, which is available through the Tyto App either through the About screen before login, or through the Menu icon  at the top-right corner after login. Please read carefully before use the enclosed Safety Information, detailing warnings and precautions concerning the operation of this device.

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## Product Overview



770-00035 Rev. A01

# Setting Up TytoPro™ For First Time Use

1. Make sure your iPhone/iPad is connected to a Wi-Fi network with internet connection.
2. On your iPhone/iPad, open the App Store, search for TytoCare and download the Tyto App.
3. Open Tyto App and log in, using your username and password.
  - a. if you're a healthcare professional, contact your system administrator to obtain your username and password.
  - b. If you're a patient, press **Sign up** to register as a new user.
4. Perform the following **Pairing** process, which connects the Tyto device to the Tyto App:
  - a. The **Device Pairing** screen will be displayed in the Tyto App.
    - i. If it is not displayed automatically, press the red pairing icon .
  - b. Enter your Wi-Fi password and press **Next**. A barcode will be displayed.
  - c. Turn on the Tyto device, using the button on the top of the device. Press **I have the App** and **Scan Barcode** in the device.
    - i. If you're not using TytoCare for the first time, to access pairing, swipe down the device screen, and choose **Pairing** in the menu.
  - d. When the device camera is on, scan the barcode as shown in figure 1.
  - e. Pairing status is indicated on the Tyto App:  - Device is paired;  - Device is disconnected.
    - i. If pairing is unsuccessful, make sure the Wi-Fi password is correct and scan the barcode again.
5. If you're a patient, you should add your family members as patients by pressing **Add a patient** (see Figure 2).

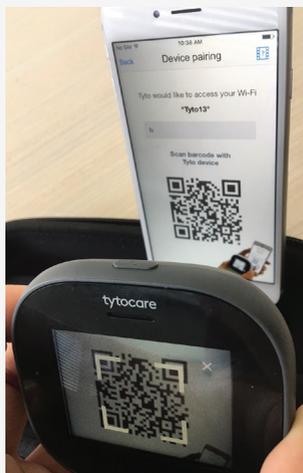


Figure 1 - Pairing

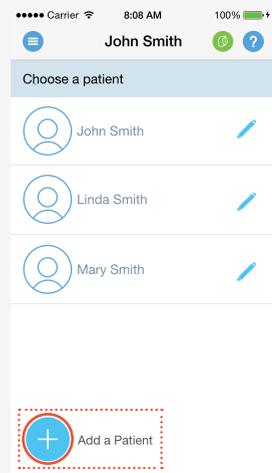


Figure 2 - Add a Patient

# Starting and Ending a Visit

1. Place your iPhone/iPad on a stand to allow easier operation of both Tyto device and App.
  - a. If an iPhone is used, use the stand supplied in the top compartment of the carrying case, as shown on Figure 3.
2. Log in to Tyto App and make sure device is paired 
  - a. If not paired automatically, follow step #4 in **Setting up TytoPro for first time use**.
3. Patient Selection:
  - a. If you're a healthcare professional, type the patient's name or ID in the search box. Select the desired patient from the list, and press **Select patient**.
    - i. If the patient is not yet defined in the system, press **Add new patient** 



Figure 3 - TytoCare kit placement

- b. If you're a patient, select the name of the patient.
- c. Unidentified Visit:**
  - i. Healthcare professionals have the option to start the examination immediately, without identifying the patient in advance.
  - ii. Unidentified mode allows occasional use of TytoCare without the App or a network.
  - iii. Press **Start Unidentified Visit** in the device, before or after login, to use this mode (see figure 4).
  - iv. This icon  indicates you're in unidentified mode.
  - v. To save the visit or send it, you'll have to identify the patient at the end of the visit.



Figure 4 - Starting Unidentified Visit

4. Select the type of visit you would like to perform online or exam-and-forward (offline).
5. See below further instructions on how to perform exams, based on the type of visit you chose (online or offline).
6. After the visit has ended, Tyto App will notify you when the clinician's notes are ready. Then log in, select patient and select **Inbox** to view the notes.

# Starting an Online Virtual Visit with a Clinician:

1. Following patient selection (see instructions above), select **See a Clinician Online**.
2. Select your preferred clinician from the list that has status **Available** .
3. Add the patient's **symptoms** and complete the short questionnaire, to let the clinician know your main complaints.
4. Wait until the clinician starts the online visit. Do not exit this screen.
5. Once the clinician starts the visit, you'll be asked to join. Press **Join** to start the video conference with the clinician.
6. The video conference with the clinician starts. During the online visit, the clinician controls your device remotely, and will guide you through the examinations.
7. During exams, you will need to connect the tips to the device as follows:
  - a. Stethoscope - for Heart, Lungs or Heart Rate exam.
  - b. Otoscope - for Ears exam.

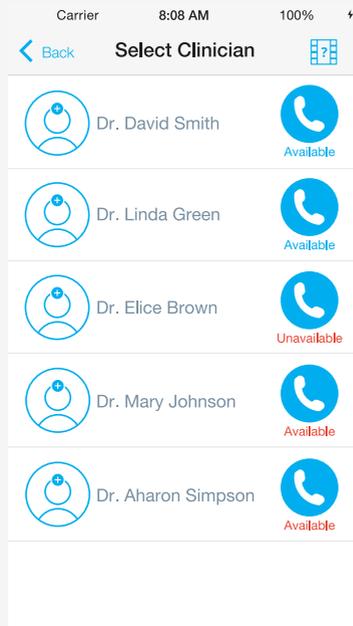


Figure 5 - Select Clinician

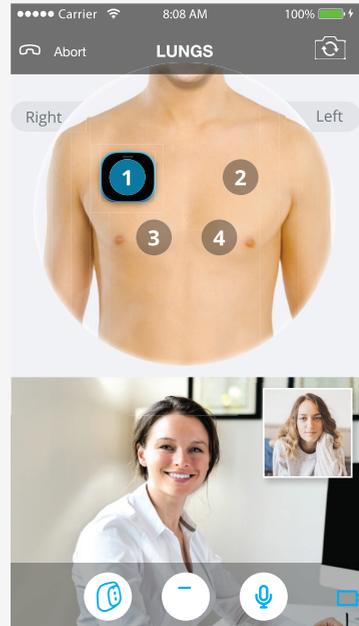


Figure 6 - Online Lungs Exam

# Performing an Offline Exam and Forward - For Healthcare Professionals

1. Following login and patient selection (see instructions above), select **Exam and Forward**.
2. On the Tyto device, select the exam you would like to perform (see figure 7)
3. Stethoscope Exams (**Heart, Lungs, Heart Rate**):
  - a. Connect Stethoscope tip to the device. Follow blue dots for correct positioning.
  - b. Connect Headphones, either to the socket on the stethoscope or at the bottom of the device behind the rubber band (see figure 8).
  - c. Select Heart, Lungs or Heart Rate.
  - d. Sound recording starts automatically, indicated by the red dot.
  - e. Every time you position the stethoscope on an auscultation point, select the relevant area on the device. The currently selected area is marked in blue. Previously marked areas will be in green.
  - f. In **Lungs**, use the **Switch Side** button to switch between front and back (see figure 9).
  - g. You can adjust the **Volume** and **Audio Filters** applied by swiping down the device's screen.
  - h. **Heart Rate** – Place the stethoscope on the Heart area for 20 seconds.
  - i. When finished, press **Done**.

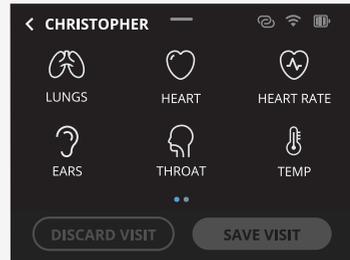


Figure 7 - Exam selection



Figure 8 - Connecting headphones

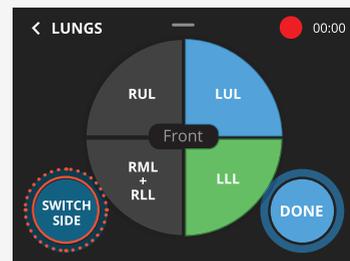


Figure 9 - Switch side in lungs button

#### 4. **Ears** Exam:

- a. Connect the Otoscope tip to the device. Follow blue dots for correct positioning.
- b. Connect disposable speculum. Two sizes are provided: adults (4mm) and small children (3mm). Once placed, swivel clockwise to lock.
- c. Select the **Ears** exam. Select the first ear you're about to examine, left or right.
  - i. Make sure not to confuse left and right, as patient's sides are mirrored.
- d. **Video** Recording starts automatically, indicated by the red dot.
- e. You can adjust the **illumination** strength by swiping down the device screen during the recording.
- f. When one eardrum was recorded, end the exam, either by pressing **Left Ear** (or **Right Ear**) to continue recording the next ear, or **Done** to finish the exam.

#### 5. **Throat** Exam:

- a. Make sure device and tongue depressor, if used, are disinfected using 70% alcohol wipes.
- b. Select **Throat** exam.
- c. **Video** Recording starts automatically, indicated by the red dot.
- d. You can adjust the **illumination** strength by swiping down the device's screen during recording.
- e. If you cannot get a view of tonsils, use the **Tongue Depressor (TD)**:
  - i. Attach the TD holder to the device, following the blue dots.
  - ii. Insert the disposable TD blade into the holder until you hear a locking click.
  - iii. To detach the TD blade, press the locking latch at the bottom of the TD.
- f. Once pharynx and tonsils are captured, press **Done** to finish.

#### 6. **Temperature** Exam:

- a. Press **Temp** exam.
- b. Aim Tyto device at the center of the forehead, just between the eyebrows (see figure 11).
- c. Make sure the device is close to skin, not exceeding 2 inches (5 cm), without hair or sweat on forehead.
- d. Temperature result will be displayed on the screen. Press **Done** to finish.



Figure 10 – Connecting the Tongue Depressor



Figure 11 – Aim Tyto at the center of the forehead

## 7. Skin Exam:

- a. Swipe left the device screen to access the second exams selection screen. Then, press **Skin** exam.
  - b. Point the camera towards the skin and press  to take picture.
  - c. Leave enough distance (1.5-2 inches (4-5cm)) from skin to allow the camera to focus.
  - d. Auto-focus is applied automatically when taking pictures. You can also press the screen at the point of interest, to activate local focus.
  - e. When finished taking the skin images, press **Done**.
  - f. You can then review the skin images using the App:
    - i. Press the Skin exam line in the App.
    - ii. Review images and optionally tag the body part where the image was taken, by pressing **tag body part** and typing in the name of the relevant body part.
    - iii. If an image is unsatisfactory, you can delete it. Press  on the bottom-right corner to delete the image.
8. Use the Tyto App to review the recorded exams (figure 12). Press each exam line to watch or listen to the recording. When all required exams are recorded, press **Save Visit** to send the recordings to the Tyto App.
- a. If you wish to delete the recordings, press **Discard Visit**.
9. Use the App to decide whether to send the recordings to a clinician for offline diagnosis (**Send to Clinician**); to initiate an online visit, where the recordings can be reviewed before the visit begins (**See a Clinician Online**); or to just save the recordings for future use and end the visit (**Save and Exit**).

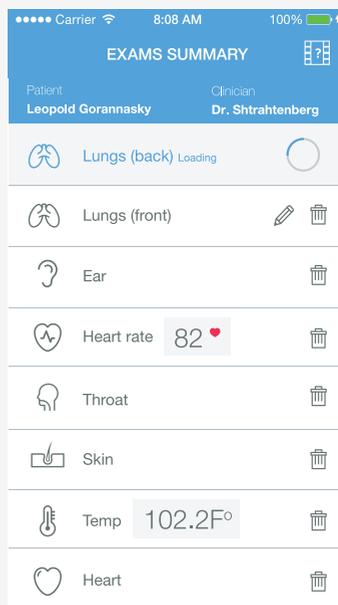


Figure 12 – Exams Summary

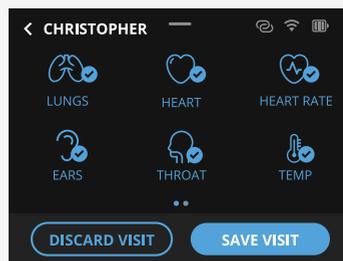


Figure 13 – Save or discard visit

# Performing an Offline Exam and Forward - For Caregivers or Patients

1. Following login and patient selection (see instructions above), select **Exam and Forward**.
2. Select in the Tyto device the type of exam you would like to perform:
3. Stethoscope exams (Heart, Lungs and Heart Rate):

- a. Connect Stethoscope to the device. Follow blue dots for correct positioning.
- b. Choose **Heart, Lungs or Heart Rate** exams.

**c. Note:** When placing the stethoscope on the chest, make sure not to confuse the left and right sides – the patient's right side is on your left.

- d. Place the stethoscope on the correct position on the body, as indicated on the device and App.

- e. Press **Start** to begin recording each point of the heart or lungs.

- f. Avoid unnecessary noise during recording, make sure the stethoscope is in full contact with the patient's skin and don't move it during recording.

- g. Observe the signal strength bar and keep it in the green zone.

- h. If the bar indicates **None** or **Low**, it means the sound quality is poor. This could be due to not having full contact with skin, not pressing the stethoscope firmly enough, or if the patient doesn't breathe deeply enough (in Lungs). If the bar indicates **Noisy**, it means there is loud external noise or you're moving the stethoscope on the body.

- i. To repeat an already recorded point, press on the body image in the device and then press  at the desired point.

- j. Follow the instructions on the App and record all required points as guided by the system.

- k. When finished recording all points successfully, press **Done** to end the exam.

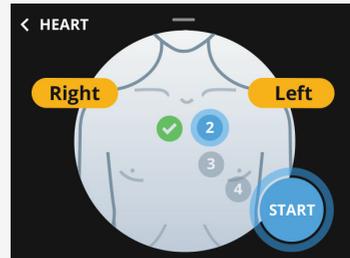


Figure 14 - Stethoscope exam

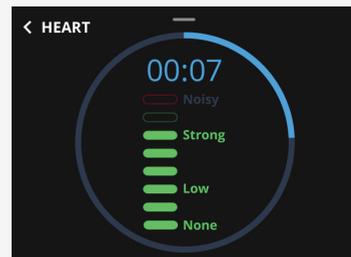


Figure 15 - Stethoscope signal strength

4. Other exams:  
Please read the instructions described above, under the section for healthcare professionals. The operation is the same, except the following:
  - a. After choosing an exam, a short animation will be displayed, reminding you of the most important instructions for performing a successful and safe exam. Once you are ready to start the exam, press **Start. Video** recording will then start automatically. When finished performing the exam, press **Stop**.
  - b. The recorded video will be displayed on the App, allowing you to review it, and to decide if it is satisfactory. If OK, press Done on the device to finish the exam. Otherwise, press Add to repeat the exam.
  - c. On the **Ears** exam, after recording the first ear, press the **Right/Left Ear** button on the device to record the next ear.
  - d. On the **Skin** exam, after each image is taken, review it in the **App**, and optionally tag the relevant body part, as described above. Then, either press **Add** to take another image, or **Done** to finish.

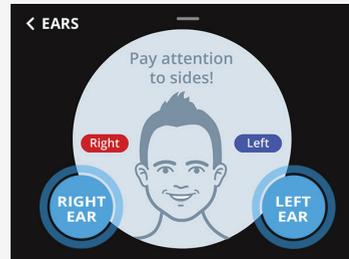


Figure 16 - Ears Exam

5. When all required exams are recorded, press **Submit** to send the recordings to the Tyto App.
6. Review the recorded exams on the App by pressing each exam line. Press **Continue** when finished.
7. Select **Send to Clinician** for an offline review.
  - a. If you want to start an online visit with a clinician and allow him to review the recorded exams before the visit, press **See a Clinician Online**.
8. Select the clinician you would like to review your recorded exams.
9. Add the patient's **symptoms** and complete the short questionnaire, to let the clinician know the patient's main complaints.
10. You'll be notified on the App once the clinician has reviewed your exams and sent you the notes.



Figure 17: Performing an ears exam

# General Operation

## 1. **Shutdown** the device:

- a. Swipe down the device's screen, and select **Shutdown**.
- b. If the device is unresponsive due to an unexpected error, or you encounter a blue screen, press the top physical button continuously for 10 seconds to force shutdown.

## 2. **Charging** the device:

- a. Remove the rubber band at the bottom of the device, and connect the charger cable to the smaller charging outlet (larger outlet is used for headphones).
- b. Charging is indicated by an orange light on the device. When fully charged, it will turn green.
- c. For safety reasons, examinations are disabled while the device is charging.



Figure 18 - Charging TytoCare

## 3. **Cleaning** Instructions:

- a. Clean the device before use. Cleaning should be done using 70% isopropyl alcohol wipes.
- b. Use Q-tip swab dipped in 70% alcohol on narrow and less accessible surfaces, such as the Otoscope lens or the tongue depressor holder.
- c. Make sure the lens is clean. It is located on the front of the Otoscope and Camera.

## 4. **Power Saving:**

- a. Tyto device features an automatic battery saving mechanism.
- b. If the device is not in use for 1 minute when performing an exam, it will exit the exam.
- c. If the device is not in use for 1 minute when not performing an exam, it will switch to sleep mode, indicated by a blinking green indicator.
- d. If the device is in sleep mode for 3 minutes, it will shut down.
- e. When turning on the device, it returns automatically to its previous state.

## 5. **Wi-Fi** Network:

- a. Make sure you have an internet connection before logging in to the Tyto App.
- b. For security reasons, a Wi-Fi password is mandatory.
- c. If you experience poor video or sound quality, make sure your internet connection meets the minimum requirements: 5 Mbps download, 2 Mbps upload. Recommended: 20 Mbps download, 5 Mbps upload.
  - i. It may be helpful to perform the Tyto Exam closer to the Wi-Fi router.



For any question, please contact us at:  
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